IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Pilux & Danpex, S.A.	*Attorney Docket No.:* 2626
Serial No.: 10/537,183	*T.C./Art Unit:* 2875
Filed: October 5, 2004	*Examiner:* Jessica L. McMillan
For: Fluorescent Lamp Reflectors	*Date of this document:* March 26, 2009
Customer Number: 07617	

Box DAC
Assistant Commissioner for Patents
Washington, DC 20231

APPLICANT'S DECLARATION

I, Antonios Paravantsos, declare as follows:

1. I am the owner of Pilux & Danpex, S.A., a Greek company with its offices at 20, G. Katehaki Str. 546 27 Thessaloniki, Greece, the applicant of the above-identified invention.

2. On June 2, 2005, Applicant filed the subject application that is directed to a reflector made of a thin, flexible, synthetic material to be fixed directly onto the glass envelope of a fluorescent lamp. The subject reflector allows significant energy savings by directing light to a desired workspace and, due to its simplicity of design, is economical (energy-efficient) to manufacture.

3. In September of 2005, Applicant requested that an external associate for Underwriters Laboratories, Inc. ("UL") of the United States investigate and certify the reflector in accordance with the existing UL safety standards. See attached Exh. A, which shows correspondence from the UL external associate to Applicant on September 1, 2005 indicating that the reflector did not comply with UL standards.

4. UL is a major organization in the U.S.A. that certifies the safety of products. See attached Exh. B, which shows that UL's "About UL" webpage retrieved from www.ul.com/about on March 19, 2009 points out that UL has "21 billion UL marks appearing * * * annually". In particular, UL certifies the safety of electrical lighting products in the U.S.A. See attached Exh. C which contains UL's "Electrical

Testing" webpage retrieved from www.ul.com/commericaltesting/electrical.html on March 9, 2009 and lists their electrical testing capabilities.

5. A UL Listing Mark certifying the safety of electrical products appears as follows:

See attached Exh. D which shows UL's North America Listing Mark retrieved from http://www.ul.com/marks_labels/mark/index.html on March 18, 2009. Regarding the foregoing UL Listing Mark, UL states in Exh. D, "The UL Listing Mark is one of the most common UL Marks. If a product carries this Mark, it means UL found that representative samples of this product met UL's safety requirements. These requirements are primarily based on UL's own published standards for safety. This type of Mark is seen commonly on appliances and computer equipment, furnaces and heaters, fuses, electrical panel boards, smoke and carbon monoxide detectors, fire extinguishers and sprinkler systems, personal flotation devices like life jackets and life preservers, bullet resistant glass, and thousands of other products thousands of electrical and other appliances."

6. The external associate of UL, WILGER TESTING COMPANY, reported to Applicant that its investigation showed that the reflector of the subject application did not comply with certain clauses of UL Standard UL1598B, and therefore the safety of the reflector could not be certified by UL. See attached Exh. A "UL 1598B" Clauses 3.2 – 3.4. For instance, the reflector did not meet the requirement of UL 1598B Clause 3.3 in Exh. A, which states, "Fluorescent lamps shall not be relied upon for support of any reflector kit component." However, the subject reflector is entirely supported by a fluorescent lamp, directly contrary to the foregoing UL 1598B Clause 3.3.

7. A UL Listing makes it possible to market lighting (and other products) nationwide, which was Applicant's intention when seeking a patent on the subject application. As UL states on its website, "If you plan to market your product nationally or internationally, it is advisable to obtain UL Listing." See attached Exh. E from UL's FAQ page addressing the questions: "Do I need to have the UL Mark on my product in the US? Is there a law stating that my product should have a UL

Mark? Does our product require UL testing?" retrieved from www.ul.com/faq/facts.html on March 19, 2009. As UL states, this is because, "In the U.S. there are many municipalities that have laws, codes or regulations which require a product to be tested by a nationally recognized testing laboratory before it can be sold in their area." Accordingly, it is a common belief that having UL Listing on a product is vital to open up a national market. For instance, a Wikipedia article on Underwriters Laboratories states that, "In practice, however, it may be extremely difficult to sell certain types of products without a UL Mark. Large distributors may be unwilling to carry a product without UL certification, and the use of noncertified equipment may invalidate insurance coverage. It is common practice in many fields to specify UL Listed equipment or UL Recognized materials. Local jurisdictional authorities, such as building, electrical and fire inspectors, may be reluctant to accept a product for installation in a building unless it carries a recognized third-party compliance mark such as the UL Mark." See attached Exh. F, which contains Wikipedia's entry on Underwriters Laboratories retrieved from http://en.wikipedia.org/w/index.php?title=Underwriters_Laboratories&oldid=270007480 on March 18, 2009. In all of 2006-2008, Applicant was only able to sell a quantity of its product in the U.S.A. in February of 2008 that was miniscule in relation to the potential national market. In February 2008, Applicant sold 50,400 reflectors to a grocery store chain, with a net profit of only about 35200€ (approx. USD $48,000), which is trivial in comparison with the national market effectively foreclosed by UL's refusal to certify safety of the reflector; that is, less than about 0.015 percent of the projected national market.

8. Further, a considerable number of the largest retailers in the U.S. have "partnered" with Underwriters Laboratories, Inc. (UL) to reach consumers with messages concerning product safety. Such retailers include Sears, Ace Hardware, Do It Best, Home Depot, Lowes Home Improvement, Menards, Sam's Club and Target. See attached Exh. G which is a listing of retailers that sell UL listed household appliances retrieved from www.ul.com/appliances/household/index.html on March 9, 2009. All of these large retailers sell cylindrical fluorescent lamps, or luminaires for such fluorescent lamps, and so all of these retailers could readily sell the subject reflector as an

accessory for such fluorescent lamps. Applicant believes that sales of the subject reflector to such large retail chain stores—either for use by the stores themselves or for resale to buyers—would be severely restricted without a UL Listing.

9. Without a UL Listing, Applicant believed that the potential market in the U.S.A. for the subject reflector would be severely restricted for any company. This, in turn, would severely restrict the ability of anyone else to use, offer to sell or sell the same type of reflector in the U.S.A., and at the same time severely restrict the likelihood of infringement of the foregoing patent rights. With any infringement severely restricted and the cost of a patent infringement suit very high, obtaining a patent on the subject application that would give Applicant the right to sue for infringement would be, for practical purposes, meaningless. This is what Applicant believed in light of UL's refusal to certify the safety of its reflector.

10. Applicant's belief is consistent with attached Exh. H, which shows that the American Intellectual Property Law Association Report of Economic Survey 2007 reports a median cost for a patent infringement suit in the U.S.A. at $600,000 for less than $1 Million at stake. For instance, the net profit of only about USD $48,000 from Applicant's limited sales in the U.S.A. as mentioned above in paragraph 7 is far too little for anyone to justify bringing an infringement suit with a median cost of $600,000, and further is far too low to attract a law firm to bring a patent infringement suit with a fee to be paid contingent on obtaining (tiny) damages from a patent infringer.

11. Accordingly, Applicant did not respond to the Office Action in the subject application dated November 6, 2006, informing Patent Attorney Charles E. Bruzga (who was prosecuting the application) on February 12, 2007 of the "non-acceptance by the UL Laboratory of the U.S.A. of the way the reflector is supported on the fluorescent lamp." See attached Exh. I which contains correspondence from Applicant to the foregoing patent attorney. Exh. I has a minor typographical error in the date of the exhibit, whose year should have been written as 2007. Similarly, Applicant did not respond to the Notice of Abandonment dated June 4, 2007. However, in doing so, Applicant did not intend to abandon a meaningful patent right in the patent application. As discussed above, this is because the potential property right was, for practical purposes, eviscerated by UL's refusal in 2006 to certify the safety of the reflector

disclosed and claimed in that application. As such, there was nothing meaningful for Applicant to abandon.

12. Apart from the U.S. market that was foreclosed by UL's refusal to certify the safety of the subject reflector, Applicant has sold the subject reflector of the present application in other markets. As a byproduct of selling in other markets, Applicant believes that, serendipitously, it has now acquired sufficient safety data on its reflector from those other markets to seek a waiver of the subject UL 1598B standard discussed above.

13. One step taken by Applicant to sell its reflector in Europe was to seek certification of the subject reflector by the Austrian Electrotechnical Association (TGM) in accordance to European Standard EN60598, which applies to this range of products. Certification of our product was in fact issued by TGM on or about September 7, 2006. See attached Exh. J which contains the discussed certification. Although the attached certification is partly in German, the front page states in English, "synthetic reflector named RSK suitable for all T8 lamps with 1,2 m."

14. The difference between the European Standard EN60598 certified as met by TGM as mentioned just above and the applicable UL Standard UL1598B mentioned above is that the European ("EN") standard approves mounting of a reflector or other part directly onto the glass envelope of a lamp, as long as the weight of the part does not exceed 500 gr. (EN 60598-01 standard). The subject reflector can be made to readily meet this weight standard. The UL standard on the other hand does not accept any part to be mounted directly onto the glass envelope of a fluorescent lamp, regardless of the lightness of the weight of the part. (UL 1598B standard). Refer to Exh. J which lists both UL 1598B and EN 60598-01 standards.

15. At the present time, Applicant has serendipitously determined that sales of the subject reflector outside of the U.S.A. has resulted in sufficient data to enable it to seek from Underwriters Laboratories, Inc. (UL) of the U.S.A. a waiver of the applicable UL Standard UL1598B mentioned above. These factors are:

a) Applicant has sold hundreds of thousands of the subject reflectors outside the U.S.A., with such reflectors conforming to the European Standard EN60598 mentioned above that requires the reflectors to be below specified weights.

b) The subject reflector has been sold from 2006 to the present, enduring durability testing over time without safety incident. In more detail, from 2006 to 2008, approximately 460,000 of the subject reflectors were sold in Europe and the Middle East, with about 110,000 reflector units sold in 2006, 150,000 units in 2007 and 200,000 units in 2008. This accumulation of sales, some of which was two or more years ago, without safety incident constitutes a substantial body of evidence of durability testing over time.

16. As a result of the foregoing, Applicant now has serendipitously accumulated a substantial body of evidence of the safety of the subject reflector that it believes will be a cogent basis to seek a waiver of the applicable UL Standard UL1598B that prohibits sales of the subject reflector.

17. As detailed above, Applicant did not intentionally abandon any meaningful patent right in the subject application, because that right had already been eviscerated by UL. Further, as detailed above, the delay between the Notice of Abandonment dated June 4, 2007 and the accompanying petition to revive the application was also unintentional.

18. I, hereby warned that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such willful false statements may jeopardize the validity of the application or any resulting registration, declare that the facts set forth in this application are true, that all statements made of my own knowledge are true, and that all statements made on information and belief are believe to be true.

Dated: March 26, 2009

PILUX & DANPEX A.G.
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BY: _____
ANTONIOS PARAVANTOS
Owner
Pilux & Danpex, S.A.

Attachments: Exhibits A-K

Exh. A

Katerina Pantanela

Από: "Joseph O'Neill" <joseph.oneill@wilgertesting.com>
Προς: <pilux-1@otenet.gr>
Αποστολή: Παρασκευή, 2 Σεπτεμβρίου 2005 04:57 μμ
Επισύναψη: 1598b_1[1a].pdf
Θέμα: RE: RS-K and RS-KE Reflector Kits

Attached is the requested Standard.

Best regards,

Joseph O'Neill
President
Wilger Testing Co., Inc.
Tel: 1-941-925-2049
Fax: 1-941-925-5964

-----Original Message-----
From: Joseph O'Neill [mailto:joseph.oneill@wilgertesting.com]
Sent: Thursday, September 01, 2005 6:09 PM
To: 'pilux-1@otenet.gr'
Cc: 'Pete Damiano'
Subject: FW: RS-K and RS-KE Reflector Kits

Dear Mr. Paravantsos,

We have opened a project to investigate the subject reflector kits for UL Listing. The investigation is being conducted in accordance with UL-1598B The Standard for Luminaire Reflector Kits.

During our review, we noticed that the reflectors are secured directly to the fluorescent lamps. Clause 3.3 of UL-1598B states "Fluorescent lamps shall not be relied upon for support of any reflector kit component." and Clause 3.4 "Friction shall not be relied upon to secure the reflector in place."

In order to comply with the applicable requirements, you will need to change the securement means of your reflector kit.

Exh. A

A possible alternative would be to remove the lamp attachment rings on the Reflectors and install the reflector body(only) with nonmetallic screws (e.g. nylon) to the luminaire. Note that adhesive or tape cannot be utilized to secure the reflector since the Standard also specifies :
(Clause 6.1) "An adhesive or adhesive tape shall not be relied upon to secure any part to a panel, bracket, or component of a luminaire.

Please indicate how you wish us to proceed with this project.

If you have any questions, please contact our office.

Regards,

Pete Damiano
Engineer

****

Exh. A

2 General

2.1 Components

2.1.1 Except as indicated in 2.1.2, a component of a product covered by this standard shall comply with the requirements for that component. See Appendix A for a list of standards covering components used in the products covered by this standard.

2.1.2 A component is not required to comply with a specific requirement that:

a) Involves a feature or characteristic not required in the application of the component in the product covered by this standard, or

b) Is superseded by a requirement in this standard.

2.1.3 A component shall be used in accordance with its rating established for the intended conditions of use.

2.1.4 Specific components are incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions.

2.2 Units of measurement

2.2.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

2.3 Undated references

2.3.1 Any undated reference to a code or standard appearing in the requirements of this standard shall be interpreted as referring to the latest edition of that code or standard.

MECHANICAL CONSTRUCTION

3 General

3.1 After installation of a reflector kit, a luminaire shall comply with the requirements in *Mechanical construction, Section 5*, of UL 1598.

3.1 revised April 26, 2005

3.2 After installation of a reflector kit, all components of the reflector kit and all components of the luminaire that were affected by the installation of the reflector kit shall be secured in place so that lamp replacement, inspection of splices to the branch-circuit supply wires, and routine maintenance will not loosen components or joints in the assembly.

3.3 Fluorescent lamps shall not be relied upon for support of any reflector kit component.

Exh. A

3.4 A reflector shall be secured in place by brackets, horizontal overlapping flanges, screws, or equivalent mechanical means. Friction shall not be relied upon to secure the reflector in place. The securement means shall be such that it will withstand any unintentional contact that occurs during lamp replacement.

4 Polymeric Materials

4.1 A polymeric material serving to complete the enclosure required in *Enclosures, Subsection 5.3*, of UL 1598, or providing structural support of any electrical component or of any non-electrical component weighing more than 3 ounces (85 g) shall comply with the requirements in *Polymeric materials, Subsection 5.7*, of UL 1598.

4.1 revised April 26, 2005

4.2 A metallized polymeric reflector that is spaced within 3 inches (76.2 mm) from any lampholder, lamp contact, lampholder lead, wiring, or other electrical component (excluding the fluorescent lamps) that are below the metallized surface shall comply with the applicable requirements for metallized plastic parts in Polymeric Materials – Use in Electrical Equipment Evaluations, UL 746C.

4.2 revised August 22, 2002

5 Air-Handling Luminaire Reflectors

5.1 A reflector kit intended for installation in a luminaire used as an air handling register shall not impede the intended air flow.

5.2 A nonmetallic material, adhesive, or adhesive tape used in a reflector kit intended for installation in a luminaire used as an air handling register shall comply with *Air-handling luminaires, Subsection 12.2*, of UL 1598.

5.2 revised April 26, 2005

6 Adhesives

6.1 An adhesive or adhesive tape shall not be relied upon to secure any part to a panel, bracket, or component of a luminaire.

6.2 An adhesive or adhesive tape that complies with the requirements for temperature, humidity, and indoor cyclic conditioning for adhesives in UL 746C is able to be relied upon to secure a part of a reflector kit to another part of a reflector kit. With regard to the temperature conditioning, a normal operating temperature of 90°C (194°F) shall be assumed unless temperature testing of the luminaire/kit combination indicates that a lower normal operating temperature applies. This requirement applies to all adhesives including an adhesive used to secure a metal foil reflecting surface or a laminate reflecting surface to the reflector base material.

Exh. B

the standard in safety

Underwriters Laboratories

About UL

About UL

Underwriters Laboratories® is an independent product safety certification organization that has been testing products and writing standards for safety for more than a century. UL evaluates more than 19,000 types of products, components, materials and systems annually with 21 billion UL Marks appearing on 72,000 manufacturers' products each year. UL's worldwide family of companies and network of service providers includes 62 laboratory, testing and certification facilities serving customers in 99 countries.

Our mission: working for a safer world since 1894

- To promote safe living and working environments by the application of safety science and hazard-based safety engineering
- To support the production and use of products which are physically and environmentally safe and to apply our efforts to prevent or reduce loss of life and property
- To advance safety science through research and investigation
- To concentrate our efforts and resources on public safety in those areas where we can make valuable contributions
- To work with integrity and a focus on quality to enhance the trust conveyed by our certification marks
- To charge fair prices that allow us to meet our obligations, sustain our growth, and invest in safety science and education
- To invest in our people and encourage our people to invest in themselves
- To be a good example of corporate citizenship and social responsibility

UL's global conformity work in 2008

- 20 billion UL Marks appeared on products
- 72,302 manufacturers produced UL certified products
- 93,762 product evaluations were conducted by UL
- 579,684 Follow-Up Services inspection visits were conducted by UL
- 19,535 types of products were evaluated by UL
- 117 UL inspection centers in service
- 98 countries with UL customers
- 447 million consumers were reached by UL with safety messages in Asia, Europe and North America
- 1,362 current Standards for Safety published by the UL family of companies (1,063 for UL; 299 for ULC)
- 64 laboratory, testing and certification facilities in the UL family of companies
- 6,808 employees in the UL family of companies ready to serve UL customers

Exh. C

Underwriters Laboratories

Go directly to a UL Service: Global Locations Search

Electrical Testing

UL has assembled a wide range of electrical testing capabilities through our product safety certification work with information technology equipment, medical devices, electrical appliances, power supplies, industrial control equipment, lighting fixtures, electrical signs, electrical construction equipment, batteries and many others.

A few of these capabilities are highlighted below.

- Burnout Testing
- EMC: 3-meter, 10-meter & Open-Field
- Inductive & Resistive Loading Simulation
- International Voltage & Frequencies
- Short Circuit Testing
- TVSS Surge Testing

To find out more about our electrical testing capabilities, *contact us*.

For the solutions you need, please contact us via the *CITS Connection*.

You can also e-mail your request directly to *cits@us.ul.com* or call us at +1-877-UL-HELPS.

Exh. D

medical devices and electrical equipment for hazardous locations. Our affiliate UL do Brasil is accredited to provide this certification. Voluntary certification can be obtained for all other product categories (including audio, video and information technology equipment) to differentiate your product in the competitive Brazilian market. UL provides an overview of Brazil's compliance system.

UL-MX Mark

The UL-MX Mark is a safety mark registered and provided by UL de Mexico, S.A de C.V. It shall be used in products that have been evaluated and certified under voluntary Mexican Standards (NMX). Used in conjunction with the official NOM countersign it is considered an official mark. UL-MX NOM Marks are only granted when a product complies with applicable and mandatory requirements of the Official Mexican Standards (Normas Oficiales Mexicanas, or NOM), the scheme /modality under which it has been evaluated and current Mexican legislation related to conformity assessment. In any case, the validity of the associated certificate of compliance will depend on the certification scheme applicable at the product's category (new, used, rebuilt, out of specifications, etc). UL provides an overview of the Mexican compliance system.

North America

UL Listing Mark

The UL Listing Mark is one of the most common UL Marks. If a product carries this Mark, it means UL found that representative samples of this product met UL's safety requirements. These requirements are primarily based on UL's own published standards for safety. This type of Mark is seen commonly on appliances and computer equipment, furnaces and heaters, fuses, electrical panel boards, smoke and carbon monoxide detectors, fire extinguishers and sprinkler systems, personal flotation devices like life jackets and life preservers, bullet resistant glass, and thousands of other products.

UL Listing vs. Recognition. What's the difference? is a brief article from UL's Code Authority Newsletter.

Exh. E

the standard in safety

Underwriters Laboratories

About UL FAQ

UL background and facts FAQ

- Expand all
- Collapse all

Is UL part of the government?
Do I need to have the UL Mark on my product in the United States? Is there a law stating that my product should have a UL Mark? Does our product require UL testing?

Manufacturers submit products to UL for testing and safety certification on a voluntary basis. There are no laws specifying that a UL Mark must be used. However, in the United States there are many municipalities that have laws, codes or regulations which require a product to be tested by a nationally recognized testing laboratory before it can be sold in their area. UL is the largest and oldest nationally recognized testing laboratory in the United States. UL does not, however, maintain a list of the jurisdictions having such regulations.

If you plan to market your product nationally or internationally, it is advisable to obtain UL Listing. If a limited marketing program is anticipated, check with the municipal office having jurisdiction in the particular areas to learn the local retail ordinances or product installation requirements applicable in that area.

Many companies make it their policy to obtain UL Listing not only to minimize the possibility of local non-acceptance, but also as a matter of corporate policy and commitment to minimize the possibility of risk in the use of their products.

Does UL only test electrical products?
Do all the UL offices, especially the international offices, offer the same services?

Exh. F

Underwriters Laboratories

From Wikipedia, the free encyclopedia

Underwriters Laboratories Inc. (UL) is a U.S. privately owned and operated independent, third party product safety testing and certification organization. Based in Northbrook, Illinois, UL develops standards and test procedures for products, materials, components, assemblies, tools and equipment, chiefly dealing with product safety. UL also evaluates and certifies the efficiency of a company's business processes through its management system registration programs. Additionally, UL analyzes drinking and other clean water samples through its drinking water laboratory in South Bend, Indiana.

UL is one of several companies approved for such testing by the U.S. federal agency OSHA. OSHA maintains a list of approved testing laboratories, known as Nationally Recognized Testing Laboratories.

The UL Mark

Contents [hide]

About UL [edit]

UL does not "approve" products. Rather it evaluates products, components, materials and systems for compliance to specific requirements, and permits acceptable products to carry a UL certification mark, as long as they remain compliant with the standards. UL offers several categories of certification. Products under its listing service are said to be "UL Listed," identified by the distinctive UL mark. In some cases, a component may be "UL Recognized," meaning UL has found it acceptable for use in a complete UL Listed product. Other products may be "UL Classified" for specific hazards or properties. UL maintains a directory of more than 3 million products through a publicly available, online database.

UL Recognized Component Mark

A manufacturer of a UL-certified product must demonstrate compliance with the appropriate safety requirements, many of which are developed by UL. A manufacturer must also demonstrate that it has a program in place to ensure that each copy of the product complies with the appropriate requirements. UL conducts periodic, unannounced follow-up inspections at manufacturers' locations to check ongoing compliance. If a product design is modified, a representative example may need to be retested before a UL mark can be attached to the new product or its packaging.

UL has developed more than 1,001 Standards for Safety, many of which are American National (ANSI) Standards, and evaluates nearly 20,000 types of products. A typical standard for electronic products includes not only requirements for electrical safety, but also spread of fire and mechanical hazards. UL evaluates products for compliance with specific safety requirements. UL certification does not guarantee the product will perform acceptably or that it is safe under all conditions (such as product misuse). UL develops its Standards to correlate with the requirements of model installation codes, such as the National Electrical Code.

The UL Mark does not carry any legal weight beyond that of any other trademark. In this sense, it is different from the CE Marking or the FCC Part 15 requirements for electronic devices which are required by law. In practice, however, it may be extremely difficult to sell certain types of products without a UL Mark. Large distributors may be unwilling to carry a product without UL certification, and the use of noncertified equipment may invalidate insurance coverage. It is common practice in many fields to specify UL Listed equipment or UL Recognized materials. Local jurisdictional authorities, such as building, electrical and fire inspectors, may be reluctant to accept a product for installation in a building unless it carries a recognized third-party compliance mark such as the UL Mark.[1]

In the past 20 years, great strides have been made in harmonizing international safety standards. For example, manufacturers can obtain certification to both U.S. and Canadian national standards through a single UL certification process. The label for products certified for both Canada and the United States includes "C" and "US" outside of the UL logo.

The European analog of the UL Mark is the CE Marking. The CE Marking indicates that a product complies with the essential requirements of the applicable European laws or directives regarding safety, health, environment and consumer protection. Manufacturers generally self-declare compliance with these requirements, whereas the UL Mark requires independent certification from UL. A product that bears a CE Marking may also bear a certification mark such as the UL Mark.

History [edit]

UL headquarters

Underwriters Laboratories Inc. was founded in 1894 by William H. Merrill. At the beginning of his career at age 25 as an electrical engineer in Boston, Merrill was sent to investigate the Chicago World Fair's Palace of Electricity. Upon seeing a growing potential in his field, Merrill stayed in Chicago to found Underwriters Laboratories.

Merrill soon went to work developing standards, launching tests, designing equipment and uncovering hazards. Aside from his work at UL, Merrill served as the National Fire Protection Association's secretary-treasurer (1903–1909) and president (1910–1912) and was an active member of the Chicago Board and Union Committee. In 1916, Merrill became UL's first president.

UL published its first standard, "Tin Clad Fire Doors," in 1903. The following year, the UL Mark made its debut with the labeling of a fire extinguisher. In 1905, UL established a Label Service for certain product categories that require more frequent inspections. UL inspectors conducted the first factory inspections on labeled products at manufacturers' facilities—a practice that remains a hallmark of UL's testing and certification program.

UL has expanded into an organization with 66 laboratories and testing and certification facilities serving customers in 104 countries.[2] It has also evolved from its roots in electrical and fire safety to address broader safety issues, such as hazardous substances, water quality and food safety.

UL Testing and Certification Operations to Go For-Profit [edit]

On August 28th 2007, UL announced that their board of Trustees has resolved to develop a for profit testing and certification subsidiary to allow for more agility in the increasingly competitive world wide testing and certification marketplace.[3] The parent not-for-profit company will continue to develop safety standards and the for-profit subsidiary is intended to generate money to be used for this safety work.[4]

UL Standards [5] [edit]

Electrical Enclosures [edit]

- Boxes-Junction and Pull (BGUZ)
- Cabinets and Cutout Boxes-Sheet Metal (CYIV)
- Industrial Control Panel Enclosures (NITW)

Industrial Control Panels [edit]

Exh. F

- Industrial Control Panels (NITW)
- Flame Control Panels
- Power Press Control Panels

Industrial Control Equipment [edit]

- Auxiliary Devices (NKCR)
- Electromechanical
- Solid State
- Mechanical
- Electronic
- Combination Motor Controllers (NKJH)
- Float and Pressure-Operated Switches (NKPZ)
- Magnetic Motor Controllers (NLDX)
- Manual Motor Controllers (NLRV)
- Motor Controllers-Miscellaneous (NMFT)
- Miscellaneous Apparatus (NMTR)
- Switches, Industrial Control (NRHT)
- Programmable Controllers (NRAQ)
- Proximity Switches (NRKH)

High-Voltage Industrial Control Equipment [edit]

- Motor Controllers, Over 1500 V (NJHU)
- Motor Controller Accessories-Over 1500 V (NJIU)
- Medium Voltage Power Conversion Equipment (NJIC)

Power Conversion Equipment [edit]

- Power Conversion Equipment (NMMS)

References [edit]

1. ^ NEC 2005-110 3(B).
2. ^ UL Press Statement
3. ^ http://www.ul.com/newsroom/news/rel/nr092807.html
4. ^ http://www.cpsc.gov/LIBRARY/FOIA/meetings/mtg08/ul4_10.pdf.
5. ^ UL Standards

See also [edit]

- MECA — Medical Equipment Compliance Associates, LLC. Testing and certification for medical devices
- Sira — European and UK equivalent ATEx and IECEx notified body
- Canadian Standards Association — Provides similar services in Canada and serves as a competitive alternative for USA products
- Underwriters' Laboratories of Canada (ULC), UL's Canadian affiliate
- *Consumer Reports*
- ETL SEMKO — A competing testing laboratory in the USA, part of Intertek, based in London
- Fire test
- Good Housekeeping Seal
- Product certification
- Quality control
- RoHS
- Standards organization
- Safety engineering
- TUV — A similar German approvals organisation
- UL94 — flammability standard
- Baseefa — A similar British approvals body
- NEMKO
- Recognized Component Mark
- MET Laboratories A competing testing laboratory based in Baltimore, MD USA

External links [edit]

- Official UL website
- List of US NRTLs

Categories: Standards organizations | Certification marks | Safety | Commercial laboratories | Northbrook, Illinois | Organizations based in Chicago, Illinois

Exh. G

Underwriters Laboratories

Go directly to a UL Service: Global Locations Search

White Goods and Household Appliances

Compliance solutions for large and small appliances

GET STARTED

Start the process now

Product categories and standards

THE UL ADVANTAGE

Consumers know and trust the UL Mark - Consumer research shows the UL Mark is important to consumers and that they look for it on the products they buy. According to an independent research study (Synovate Research reinvented, 2006):

- 66% of Consumers are aware of the UL Mark, significantly higher than UL's competitors in the conformity assessment category.
- The presence of a safety mark is an important decision criteria for over half of all consumers. Two-thirds of "Safety Concerned" consumers indicated that the presence of a safety mark is an important factor in their purchase decision.

Giving confidence to retailers - UL has partnered with both Wal-Mart and Sears to reach more than 130 million shoppers with messages on safety which included 30 second radio and TV public service announcements on their dedicated, in-store broadcast networks. Some of UL's other retailer partners include: Ace Hardware, Best Buy, Circuit City, Comp USA, Do It Best, Home Depot, JCPenney, Kmart, Lowe's Home Improvement, Menards, Radio Shack, Sam's Club, Target, and TruServ.

Most complete service offering - One provider for all your conformity assessment needs including electrical safety-testing, gas-fired services, food equipment sanitation, international certification and electromagnetic compatibility assessment.

Access to global markets - When you work with UL, you get the CB-style test report along with the UL Mark for streamlined global access. With a network of knowledge that spans 71 countries, UL can help you obtain key national marks. UL is a Certified Body Test Laboratory (CBTL) approved by the IECEE for several CB Scheme product categories including HOUS: Household Appliances, tested in accordance to IEC 60335

Access to industry-leading expertise - UL is the knowledge leader for the appliances industry with staff members who play an active role on multiple international standards and technical committees.

Exh. H

TYPICAL COSTS OF LITIGATION

Survey participants were asked to provide cost estimates, *but only for the types of litigation they had personal knowledge of, either as a service provider (attorney in private practice) or as a purchaser (corporate counsel), and were engaged in recently.* "Total cost" was requested, including outside legal and paralegal services, local counsel, associates, paralegals, travel and living expenses, fees and costs for court reporters, photocopies, courier services, exhibit preparation, analytical testing, expert witnesses, translators, surveys, jury advisors, and similar expenses.

The following table reports median litigation costs for Patent Infringement, Trademark Infringement, Trademark Opposition/Cancellation, Copyright Infringement, Trade Secret Misappropriation, Two-Party Interference, and Inter Partes Reexamination.

MEDIAN LITIGATION COSTS	$000s			
	2001	2003	2005	2007
PATENT INFRINGEMENT SUIT				
LESS THAN $1 MILLION AT RISK				
End of discovery	$250	$290	$350	$350
Inclusive, all costs	499	500	650	600
$1-$25 MILLION AT RISK				
End of discovery	$ 797	$1,001	$1,250	$1,250
Inclusive, all costs	1,499	2,000	2,000	2,500
MORE THAN $25 MILLION AT RISK				
End of discovery	$1,508	$2,508	$3,000	$3,000
Inclusive, all costs	2,992	3,995	4,500	5,000
TRADEMARK INFRINGEMENT SUIT				
LESS THAN $1 MILLION AT RISK				
End of discovery	$102	$150	$200	$150
Inclusive, all costs	230	298	300	255
$1-$25 MILLION AT RISK				
End of discovery	$299	$365	$400	$350
Inclusive, all costs	502	602	700	650
MORE THAN $25 MILLION AT RISK				
End of discovery	$ 502	$ 599	$ 750	$ 600
Inclusive, all costs	1,001	1,006	1,250	1,250
TRADEMARK OPPOSITION/CANCELLATION				
End of discovery	$35	$50	$50	$50
Inclusive, all costs	50	78	80	75
COPYRIGHT INFRINGEMENT SUIT				
LESS THAN $1 MILLION AT RISK				
End of discovery	$101	$101	$138	$150
Inclusive, all costs	200	249	250	290
$1-$25 MILLION AT RISK				
End of discovery	$202	$298	$250	$350
Inclusive, all costs	400	499	440	500
MORE THAN $25 MILLION AT RISK				
End of discovery	$400	$501	$550	$ 550
Inclusive, all costs	750	950	975	1,000

PILUX
DANPEX

Exh. I

Mail: 20, G. Katehaki Str.	**Tel :** +30-2310-522670	**e-mail:** pilux-1@otenet.gr
546 27 Thessaloniki, Greece	**Fax:** +30-2310-524077	**http://www.pilux-danpex.gr**

To	**: CHARLES BRUZGA – U.S.A.**	**Date**	**: 02/12/06**
Attn	**: MR. CHARLES BRUZGA**	**Fax-No**	**: 2200**
Fax	**: 001-212-480-3008** E-mail:c_bruzga@cbruzgalaw.com	**Page**	**: 1 of 1**

Notification: Mrs. Theodora Papategou-Paravantsou Law Office

Dear Mr. Bruzga,

Ref.: PILUX reflector 2626

First of all we would like to apologize for the delayed reply regarding the Office Action, which was caused by some new information that came up and concerns the non-acceptance by the UL Laboratory of the U.S.A. of the way the reflector is supported on the fluorescent lamp.

Presently we are searching for an alternative way of supporting the reflector to a random fluorescent luminary while, simultaneously, we are trying to update the UL Laboratory regarding the different way this issue is dealt by the European Organisation CENELEC.

Therefore, we kindly ask you to inform us if we could succeed in obtaining a time extension for the reply to the Office Action, so as to earn some time in order to decide whether it will be in our benefit to further pursue or to abandon the invention at hand.

With best regards,

Joseph Paravantsos
PILUX & DANPEX A.G.

Exh. J

TGM

Versuchsanstalt

HÖHERE TECHNISCHE BUNDES-LEHR-UND VERSUCHSANSTALT WIEN XX
Technologisches Gewerbemuseum
A-1200 Wien, Wexstraße 19-23

STAATLICHE VERSUCHSANSTALT – TGM
ELEKTROTECHNIK UND ELEKTRONIK

EXPERTISE

TGM - VA EE 30866

synthetic reflector named RSK suitable
for all T8 Lamps with 1,2 m

Applicant:	PILUX & DANPEX A G.		
Adress:	GR-54627 Thesssaloniki, 20 G. Katehaki St		
Date of order:	2006-09-11	Sign. or order:	Mr. Joseph Paravantsos
Order reached:	2006-09-11	Receiving of test samples:	2006-08-02
Duration of test:	cw 31-37/2006	TGM-Zahl:	453/06

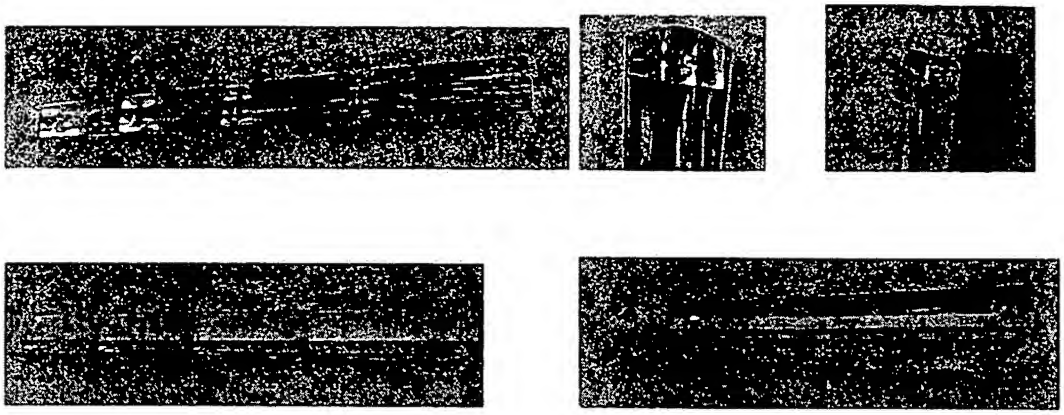
30866_ge

1 Order:

As requested we undertook testing of the Reflector type HSKW suitable for all T8 Lamps with 1,2 m length.

2 Description of the test-samples:

Plastic coated reflector for lamps T8 with a length of 1,2 m for single and double application of fluorescent tubes.



3 Test requirements:

Test were carried out in according to EN 60598-1:2004.

The reflector meets the standards under the following sections:

1.6 (4.22)	Attachments to lamps	220 g Reflector with lamp (T8 36W) 100 g without lamp	P

1.12 (12)	**ENDURANCE TEST AND THERMAL TEST**		**P**
1.12 (12.3)	Endurance test:		P
	- mounting-position ..... :	Acc. to mounting instruction	—
	- test temperature (°C) ..... :	35°C	—
	- total duration (h) ..... :	168h	—
	- supply voltage: Un factor; calculated voltage (V) .. :	1,1 Unenn 253 V	—
	- lamp used ..... :	FD-36-L/N-G13	—
1.12 (12.3.2)	After endurance test:		P
	- no part unserviceable		P
	- luminaire not unsafe		N/A
	- no damage to track system		N/A
	- marking legible		N/A
	- no cracks, deformation etc.		P

1.15 (13)	**RESISTANCE TO HEAT, FIRE AND TRACKING**		**P**
1.15 (13.3.2)	Glow wire test (650 °C):		P
	- part tested ..... :	Reflector	P
	- part tested ..... :		N/A

4 Result:

The tested article has met the standard test requirements.

This expertise

Is including 4 pages with 0 table(s), 0 illustration,

5 pictures and 0 appendix / ces with pages.

Offical in charge: Ing. Noori

Vienna, 2006-09-07

Technologisches Gewerbe-Museum
Höh. techn. Bundes - Lehr- und Versuchsanstalt
Wien XX.
Ruppel

Prof. Dipl.-Ing. Dr. Wolfgang Nitsche
Head of Department

Dipl.-Ing. Karl Reischer
Principal

1. The test results recorded in this document refer exclusively to the test item described.
2. The documentation and material returned to the client have been marked when necessary by the Testing Institute as far as this is possibl
3. A third party will only be notified of the content of this document at the written agreement of the client.
4. The reproduction of excerpts from this document shall require the permission of the Testing Institute.

Exh. J

Staatliche Versuchsanstalt TGM
A1200 Wien, Wexstraße 19-23

TGM Versuchsanstalt

Fachbereich ELEKTROTECHNIK und ELEKTRONIK

der akkreditierten Prüfstelle Nr. 77 gemäß Bescheid BMwA 92714/589-IX/2/97

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Gemeldete Stelle bei der EU-Kommission für die EMV-Richtlinie (KennNr. 0732) und die Niederspannungsrichtlinie (Amtsblatt der EG Nr. C214/5).

Prüfstelle	für das nationale ÖVE-Zeichen für die KEYMARK-Kennzeichnung für das ENEC-, CCA- und CB-Verfahren für die Zulassungen nach ETS-Richtlinien
Konformitätsbewertung	nach der KFZ-Richtlinie 95/54EWG, 95/56 EWG, 97/24 EWG nach der EMV-Richtlinie 89/336/EWG nach der Niederspannungsrichtlinie 73/23/EWG
Messungen und Dienstleistungen	Typprüfungen, Teil- und wiederkehrende Prüfungen entsprechend nationaler und internationaler Normen und Richtlinien EMV-Messungen im Labor und vor Ort Elektrosmog-Messungen Messung der elektromagn. Feldstärke in der Nähe v. Mobilfunkstationen Messung der Netzrückwirkungen von Maschinen, Geräten und Anlagen Beratung und Betreuung bei Produktentwicklungen Prüfung von Kabelkomponenten für eine strukturierte EDV-Verkabelung Abnahmemessungen von Verkabelungsstrecken (LWL, UTP, STP, COAX) Schutzartprüfungen Klima- und Alterungsprüfungen Hochspannungsprüfungen (Wechsel- u. Stoßspannung, TE-Messungen) Messung elektrischer Kennwerte von Isolierstoffen Gebrauchswertprüfungen Schadensfeststellungen

Prüfleistungen	Niederspannung	AC 50 Hz, dauernd: 3~ 240/400V, 1430 kVA AC-Frequenzumformer: $16^2/_3$ Hz ... 50 Hz (50 kW) ... 120 Hz DC-Stationärbatterie: 240 V, 120 kW Bremsleistung: 50 kW
	Hochspannung	Prüfwechselspannung: 200 kV eff Prüfgleichspannung: 200 kV Stoßspannung (1,2/50 µs): 140 kV
	Hochfrequenz	DC-... 20GHz Feldstärke : bis 50 V/m

UL 1598B standard

Supplemental Requirements for Luminaire Reflector Kits for Installation on Previously Installed Fluorescent Luminaires

MECHANICAL CONSTRUCTION

3 General

3.1 After installation of a reflector kit, a luminaire shall comply with the requirements in Mechanical construction, Section 5, of UL 1598.

3.2 After installation of a reflector kit, all components of the reflector kit and all components of the luminaire that were affected by the installation of the reflector kit shall be secured in place so that lamp replacement, inspection of splices to the branch-circuit supply wires, and routine maintenance will not loosen components or joints in the assembly.

3.3 Fluorescent lamps shall not be relied upon for support of any reflector kit component.

EN 60598-01 standard

Luminaires - Part 1: General requirements and tests

4.22 Attachments to lamps

Luminaires shall not incorporate attachments to lamps which might cause overheating or damage to the lamps, lamp caps or holders, luminaires or attachments.

Attachments to fluorescent lamps are only allowed if supplied or approved by the luminaire manufacturer. The total weight of the lamp plus attachment shall not exceed:

– 100 g for lamps with cap G5, and
– 500 g for lamps with cap G13.